

What is claimed is:

1. A method of forming a conductive thin film pattern, comprising:
  - a first step of forming an underfilm made of a conductor on a substrate;
  - a second step of selectively forming a first resist frame on the underfilm;
  - a third step of forming a first conductive layer pattern by making selective plating growth using the first resist frame as a mask and using the underfilm as an electrode film occur;
  - a fourth step of forming an intermediate conductive layer so as to cover the first resist frame and the first conductive layer pattern;
  - a fifth step of selectively forming a second resist frame in a position corresponding to the first resist frame on the intermediate conductive layer;
  - a sixth step of forming a second conductive layer pattern by making selective plating growth using the second resist frame as a mask and using the intermediate conductive layer as an electrode film occur; and
  - a seventh step of completing formation of the conductive thin film pattern by removing the first and second resist frames, the intermediate conductive layer in a portion sandwiched by the resist frames, and the underfilm.
2. A method of forming a conductive thin film pattern according to claim 1, wherein in the fourth step at least the second resist frame is

formed by using a liquid photoresist material.

3. A method of forming a conductive thin film pattern according to claim 1, wherein in the fourth step, the intermediate conductive layer is formed by using a material having the same composition as that of at least one of the first and second conductive layer patterns.

4. A method of forming a conductive thin film pattern according to claim 2, wherein in the fourth step, the intermediate conductive layer is formed by using a material having the same composition as that of at least one of the first and second conductive layer patterns.

5. A method of manufacturing a thin film magnetic head including a conductive thin film pattern,

wherein a step of forming the conductive thin film pattern comprises:

a first step of forming an underfilm made of a conductor on a substrate;

a second step of selectively forming a first resist frame on the underfilm;

a third step of forming a first conductive layer pattern by making selective plating growth using the first resist frame as a mask and using the underfilm film as an electrode film occur;

a fourth step of forming an intermediate conductive layer so as to

cover the first resist frame and the first conductive layer pattern;

a fifth step of selectively forming a second resist frame in a position corresponding to the first resist frame on the intermediate conductive layer;

a sixth step of forming a second conductive layer pattern by making selective plating growth using the second resist frame as a mask and using the intermediate conductive layer as an electrode film occur; and

a seventh step of completing formation of the conductive thin film pattern by removing the first and second resist frames, the intermediate conductive layer in a portion sandwiched by the resist frames, and the underfilm.

6. A method of manufacturing a thin film magnetic head according to claim 4, wherein a thin film coil for generating a signal magnetic field for performing magnetic recording is formed by using the step of forming the conductive thin film pattern.

7. A method of manufacturing a thin film magnetic head according to claim 4, wherein a wiring pattern functioning as a conductive lead is formed by using the step of forming the conductive thin film pattern.

8. A method of manufacturing a thin film inductor including a conductive thin film pattern,

wherein a step of forming the conductive thin film pattern

comprises:

a first step of forming an underfilm made of a conductor on a substrate;

a second step of selectively forming a first resist frame on the underfilm;

a third step of forming a first conductive layer pattern by making selective plating growth using the first resist frame as a mask and using the underfilm as an electrode film occur;

a fourth step of forming an intermediate conductive layer so as to cover the first resist frame and the first conductive layer pattern;

a fifth step of selectively forming a second resist frame in a position corresponding to the first resist frame on the intermediate conductive layer;

a sixth step of forming a second conductive layer pattern by making selective plating growth using the second resist frame as a mask and using the intermediate conductive layer as an electrode film occur; and

a seventh step of completing formation of the conductive thin film pattern by removing the first and second resist frames, the intermediate conductive layer in a portion sandwiched by the resist frames, and the underfilm.

9. A method of manufacturing a thin film inductor according to claim 7, wherein a wiring pattern functioning as a conductive lead is formed by using the step of forming the conductive thin film pattern.

10. A method of manufacturing a micro device including a conductive thin film pattern,

wherein a step of forming the conductive thin film pattern comprises:

a first step of forming an underfilm made of a conductor on a substrate;

a second step of selectively forming a first resist frame on the underfilm;

a third step of forming a first conductive layer pattern by making selective plating growth using the first resist frame as a mask and using the underfilm as an electrode film occur;

a fourth step of forming an intermediate conductive layer so as to cover the first resist frame and the first conductive layer pattern;

a fifth step of selectively forming a second resist frame in a position corresponding to the first resist frame on the intermediate conductive layer;

a sixth step of forming a second conductive layer pattern by making selective plating growth using the second resist frame as a mask and using the intermediate conductive layer as an electrode film occur; and

a seventh step of completing formation of the conductive thin film pattern by removing the first and second resist frames, the intermediate conductive layer in a portion sandwiched by the resist frames, and the underfilm.

11. A conductive thin film pattern comprising:
  - an underfilm pattern made of a conductor;
  - a first conductive layer pattern formed by selective plating growth using the underfilm pattern as an electrode film on the underfilm pattern;
  - an intermediate conductive layer pattern formed on the first conductive layer pattern; and
  - a second conductive layer pattern formed by selective plating growth using the intermediate conductive layer pattern as an electrode film on the intermediate conductive layer pattern.